Ahmed Mahmoud Shama

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Personal pages:
- **LinkedIn**:
  https://www.linkedin.com/in/ahmedshama3/?originalSubdomain=au
- **ResearchGate**: Ahmed SHAMA| Research profile

Education

PhD in Mechanical Engineering, UNSW Canberra, Australia	**September 2024**

Research Topic*: Wave induced hydrodynamic on marine and Offshore structure - Experimental and Numerical Investigation.*
Supervisors: Dr Ahmed Swidan – Prof. John Young – *Prof. Dev Ranmuthugala*

Master of Science in Marine Engineering	**November 2017**

Arab Academy for Science, Technology and Maritime Transport (**AASTMT**).
Specialization: CFD in marine application, Acoustic Emissions, Subsea piping system.
GPA: 4 /4 (Excellent with honour degree – **Head of pre-master courses class**)
Thesis: "*A Study of Oil Leakage from Subsea Pipeline using Acoustic Emissions and Computational Fluid Dynamics***."**

Bachelor's Degree in Marine Engineering	**July 2014**

Arab Academy for Science, Technology and Maritime Transport (**AASTMT**).
Specialization: Offshore; GPA: 3.94 /4 (Excellent with honour degree - **Head of class**)
Graduation Project: Design Aspects of FPSO floating production offloading storage unit.
(**Grade** A+ Excellent).   **Accreditation**: ABET – IMarEST – ISO - NAQAA

Work Experience

University teaching

AASTMT, Marine Engineering Department, Alexandria, Egypt	**2014 - Current**

- Tutored Undergraduate Courses: [CC114 Introduction to Programming - CC442 Digital Design & Intro. to Microprocessor - EE418 Automatic Control Systems, other Ahmed M Shama | AASTMT Faculty Member]

Professional Training

• **Offshore rig Perro Negro**, Jack-Up Platform for crude oil.	**2016**
• **Ship Manager Trainee (Shipyard),** Arab Shipbuilding and Repair Yard (ASRY) in Bahrain, Safety department	**2014**
• **On board ship Semester Training (Cadet)**: *AIDA 4* Ship	**2011- 2012**
• **FPSO Offshore Vessel:** Zafarana platform, Floating Production, Storage, and Offloading (FPSO), Gulf of Suez, Egypt.	**2014**
• The holding company for **electricity generation**, Tur Sinai, Egypt.	**2013**

Publications

PhD Publications

(**Under review**), The Influence of Cylinder Geometry on the Characteristics of the Generated Surface Wave and Drag Forces - Numerical Investigations, Ocean Engineering, 2023.
(**Published**), Free Surface Effects on Various Surface-Piercing Cylinder Configurations, AFMC 2020, 4 – 8 December **2020**, Sydney, Australia.
(**Published**), Promoting Submarine Stealth by Reducing Submarine Mast Hydrodynamics, International Maritime Conference IMC, May **2022**, Sydney, Australia.
(**Published**), Reduction of Risky Plume Induced by Submarine Mast, (6th Submarine Science, Technology & Engineering SubSTEC6), November **2021**, Adelaide, Australia.

M.Sc. Publications

(**Published**), Multiphase Flow Simulation of Subsea Pipeline Leakage Detected by Acoustic Emission Method, The American Society of Mechanical Engineers ASME, FEDSM**,** 10 – 12 August **2021**.

(Presented), Geometry Effects of Surface Piercing Cylinders on the Severity of the Generated Surface Waves, SIA 2020 Conference, 16-18 November **2020**, Canberra, Australia.

(Published), Wave Induced Plume and Hydrodynamic Loads Over Vertical Circular Cylinder Piercing Surface – Numerical Investigation, AFMC 2020, 6- 10 December **2020,** Brisbane, Australia.

(Published), Experimental study for the leakage detection in sub-sea pipeline by applying acoustic emission technique, IMAM 2017 Conference, 9-11 October **2017**, Lisbon, Portugal.

(Published), Review of leakage detection techniques for a subsea pipeline, 9 pages, International Maritime Association of the Mediterranean IMAM 2017 Conference, 9-11 October **2017**, Lisbon, Portugal.

Certificates

Marine Certificates

Third Marine Engineer Certificate of Competency, AASTMT, International Maritime Organization (IMO), October **2014**.
Maritime Short Courses: (7 - STCW).

Educational Certificates

GTTP, Graduate Teaching Training Program, (UNSW 2021).
Educational Training for Lecturers, (AAST 2014).
ELT, Learning and Teaching Program (ANU 2023).
Statistical Package for the Social Sciences (**SPSS**).

International Conferences and Meetings

1. **APS DFD,** annual meeting, Indianapolis, Indiana, USA. November 2022
2. **AFMC, AFMS** ECR retreat, Australia. 2020 – 2021 - 2022
3. **IMC, Indo Pacific**, Sydney, Australia. Oct. 2019 – May 2022
4. **SIA,** 6th SubSTEC6, 10th biennial conference, Australia. Nov. 2020, Nov. 2021
5. **ASME, FEDSM,** Fluids Engineering Meeting. August 2021
6. **ICSOS 2020**, Glasgow, Scotland, UK. Sep. 2020
7. **SNAME Leadership Summit,** Virginia, USA. June 2017
8. **Industrial & consultancy committee meeting**, Egypt. October 2015
9. **IMOC 2014**, Al Jubail –Saudi Arabia. September 2014.

Honors and awards

- **AFMS** student participation Awards at AFMC 2022**.** **2022**
- **UNSW Canberra,** PhD tuition fees and stipend scholarship. **2019**
- **Top** of Graduation Class, Marine Engineering, AASTMT. **2014**
- Egyptian Engineers **Syndicate** award; the "Best Marine Project in the year" **2014**
- **Top** of Marine Engineering Class in the Semester, AASTMT. **f. 2013/14, Sp.2012/13**
- **Highest** Semester GPA "4/4", AIDA-IV Ship Training, AASTMT, **Fall 2012**
- **Third** in South Sinai governorate, Secondary school. **2009**

Extra Curriculum activities

IT Skills

- **Engineering Software:** Maxsurf, Auto-ship, Auto-hydro, SACS, data digitizer, and SPSS.
- **Programming Languages:** MATLAB (Simulink), Python, Java, C++.
- **CFD Packages:** STAR-CCM+, Ansys Workbench (Structure - Fluent), Open FOAM, Gambit.
- **3D Modeling:** Rhinoceros, AutoCAD, Solid Edge.
- **MS** Windows & Office (ICDL certificate, Nov. 2015) and Endnote.

Scientific Committee Membership: SNAME- RINA – IMarEST- AFMS - AIP - EES
Community service: Egyptian Red Crescent **-** Life Makers Association – UG & PG Students Union